**To:** Clifford Firstenberg[cfirstenberg@tierrasolutionsinc.com]

**Cc:** Carlie Thompson@tierrasolutionsinc.com]; Glenn Springs, Holdings, Inc.

(juan\_somoano@oxy.com)[juan\_somoano@oxy.com]; Enrique Castro[ecastro@tierrasolutionsinc.com];

lannuzzi, Tim[Tim.lannuzzi@arcadis.com]

From: Naranjo, Eugenia

**Sent:** Wed 11/2/2016 5:19:12 PM

Subject: RE: Proposed Date for Exposure Factors/Toxicity Reference Value Memorandum deliverable

to USEPA

Yes, it's OK. What about the Human Health RAGs part A and D tables? Will you submit those Nov 18?

From: Clifford Firstenberg [mailto:cfirstenberg@tierrasolutionsinc.com]

Sent: Wednesday, November 02, 2016 1:15 PM

**To:** Naranjo, Eugenia < Naranjo. Eugenia @epa.gov>

Cc: Carlie Thompson <a href="mailto:cthompson@tierrasolutionsinc.com">cthompson@tierrasolutionsinc.com</a>; Glenn Springs, Holdings, Inc.

(juan\_somoano@oxy.com) < juan\_somoano@oxy.com>; Enrique Castro

<ecastro@tierrasolutionsinc.com>; Iannuzzi, Tim <Tim.Iannuzzi@arcadis.com>

Subject: Re: Proposed Date for Exposure Factors/Toxicity Reference Value Memorandum

deliverable to USEPA

No. We are looking for an extension of delivery of the EP (or EV)/TRV memo to the end of November.

Clifford Firstenberg

Sent from my iPhone

On Nov 2, 2016, at 1:08 PM, Naranjo, Eugenia < Naranjo. Eugenia@epa.gov > wrote:

Cliff,

Are you looking for an extension from November 10 to November 14? If that's the case, then it's OK.

Eugenia

**From:** Clifford Firstenberg [mailto:cfirstenberg@tierrasolutionsinc.com] Sent: Wednesday, November 02, 2016 6:51 AM To: Naranjo, Eugenia < Naranjo. Eugenia @epa.gov > Cc: Carlie Thompson < cthompson @tierrasolutionsinc.com>; Glenn Springs, Holdings, Inc. (juan somoano@oxy.com) < juan somoano@oxy.com>; Enrique Castro <ecastro@tierrasolutionsinc.com>; Iannuzzi, Tim <Tim.Iannuzzi@arcadis.com> Subject: FW: Proposed Date for Exposure Factors/Toxicity Reference Value Memorandum deliverable to USEPA Eugenia Tierra would like to request an extension for delivery of the EF/TRV memorandum for the reasons outlined in Tim's email, below. In short, we need additional time to review the revised BERA for the LPRRP (and supporting documents) that we received only two weeks ago, and with which we are striving to be consistent. Importantly, this will not impact the due-date of the BERA to USEPA, barring any other unforeseen issues, and thus, will not affect the project schedule. If you would like to discuss, please let me know, but, as you also know, I am out in the field Wed and Thu this week, so we will have to schedule accordingly. As of now, I am planning to be at Lister on Thursday when you visit, so we should be able to chat at that time, if necessary. Thanks Cliff

Clifford E. Firstenberg

Principal and Environmental Sciences Manager

Tierra Solutions, Inc.

E-mail: <a href="mailto:cfirstenberg@tierrasolutionsinc.com">cfirstenberg@tierrasolutionsinc.com</a>

Phone: New number: 757-282-6462 (757-258-7720 no longer in service)

Cell: 757-206-6281

<image001.jpg>

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Thank You.

From: Iannuzzi, Tim [mailto:Tim.Iannuzzi@arcadis.com]

Sent: Tuesday, November 01, 2016 12:44 PM

**To:** Carlie Thompson <a href="mailto:cthompson@tierrasolutionsinc.com">cthompson@tierrasolutionsinc.com</a>; Clifford Firstenberg

<cfirstenberg@tierrasolutionsinc.com>

Cc: Iannuzzi, Tim <Tim.Iannuzzi@arcadis.com>

Subject: Proposed Date for Exposure Factors/Toxicity Reference Value Memorandum

deliverable to USEPA

Carlie and Cliff,

Per my conversation with Cliff this morning, we are making very good progress on our

This memo was triggered after the approval of the Phase III QAPP which currently puts it a November 14 <sup>th</sup> as the due date I believe.
The reason we need a bit more time is as follows:
On October 4 <sup>th</sup> , USEPA provided Tierra (at our request) documentation on the comments, directives and RTCs relative to the CPG BERA process for the LPRRP. Then on October 17 <sup>th</sup> , we received a link to a revised BERA. It was our intention to utilize, to the extent possible and technically appropriate, the exposure factors and toxicity reference values compiled, evaluated and vetted by CPG and the USEPA for the estuarine portion of LPR in evaluating/selecting our preliminary values for the NBSA BERA. This is consistent with the mandate by USEPA to keep the process for the two sites consistent. Now that we have had some time to initially review the revised CPG BERA, we realize that it is very different than the draft version we previously had, and contains a variety of TRVs that CPG was directed to use by USEPA. Many of these seem to link to the risk work conducted by Battelle for the lower 8 mile FFS, and this requires us to go back and evaluate those documents for context. Given all of the documents we received in the last couple of weeks, and the complexity of the datasets and literature used to derive multiple sets of TRVs, we need to request more time to complete our memorandum. I am proposing a new due date to USEPA by the end of November. This short delay will not impact the schedule for starting the BERA process in February, as the present date to have final agreement on the EF/TRV memorandum was January 31 <sup>st</sup> , a month prior to the start of the BERA report.
Let me know if we need to discuss further.
Thanks,
Tim
Timothy lannuzzi   Senior Vice President/Principal Scientist   tim.iannuzzi@arcadis.com

BERA-related deliverables, but we need to ask for an extension on the EF/TRV memo.

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## <image002.png>

Be green, leave it on the screen.

<image003.png>

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